Outline of Amendments:

(i) Amend claim 4 so that it includes the limitations of claims 5 through 7. The wording "such that a plurality of concave portions are repeatedly formed in a regular manner" in amended claim 4 is supported by paragraph [0087] of U.S. Patent Application Publication (US 2009/0314936 A1) of the present application.

(ii) Amend claim 15 so that it includes the limitations of claims 5 through 7 (this is supported by paragraphs [0090] to [0092] of U.S. Patent Application Publication (US 2009/0314936 A1) of the present application). The wording "such that a plurality of concave portions are repeatedly formed in a regular manner" in amended claim 15 is supported by paragraph [0087] of U.S. Patent Application Publication (US 2009/0314936 A1) of the present application. The wording "repeatedly disposing the concave portions on a surface in a regular manner of a substrate in accordance with lithography" in amended claim 15 is supported by paragraph [0078] of U.S. Patent Application Publication (US 2009/0314936 A1) of the present application.

<Draft of Amended Claims>

4. (Currently amended) A sample target comprising, as a sample support surface, a surface which is used to support a sample in ionizing the sample on the basis of laser irradiation so as to perform mass spectrometry and which has a finely bumpy structure ~~of not less than 1nm and less than 1 μm, wherein~~

~~the bumpy structure of the sample support surface is~~

~~arranged so that a plurality of concave portions are regularly formed.~~ such that a plurality of concave portions are repeatedly formed in a regular manner, wherein

an interval of the concave portions adjacent to each other is not less than 10nm and less than 1μm, a width of each of the concave portions is not less than 10nm and less than 1μm, and a depth of each of the concave portions is not less than 10nm and less than 1μm.

5. (Canceled) ~~The sample target as set forth in claim 3 or 4, wherein an interval of the concave portions adjacent to each other is not less than 10nm and less than 1μm.~~

6. (Canceled) ~~The sample target as set forth in any one of claims 3 to 5, wherein a width of each of the concave portions is not less than 10nm and less than 1μm.~~

7. (Canceled) ~~The sample target as set forth in any one of claims 3 to 6, wherein a depth of each of the concave portions is not less than 10nm and less than 1μm.~~

...

15. (Currently amended) A method for producing a sample target including, as a sample support surface, a surface which is used to support a sample in ionizing the sample on the basis of laser irradiation so as to perform mass spectrometry and which has a finely bumpy structure ~~of not less than 1nm and less than 1μm~~such that a plurality of concave portions are repeatedly formed in a regular manner, wherein

an interval of the concave portions adjacent to each other

is not less than 10nm and less than 1μm, a width of each of the concave portions is not less than 10nm and less than 1μm, and a depth of each of the concave portions is not less than 10nm and less than 1μm,

said method comprising the step of repeatedly disposing the concave portions on a surface in a regular manner of a substrate in accordance with lithography so that an interval of the concave portions is not less than 10nm and less than 1μm and a width of each of the concave portions is not less than 10nm and less than 1μm, so as to form the sample support surface on the surface of the substrate.

2. Claims 1 and 13

Also for claims 1 and 13, we are considering making amendments in order to clarify that the finely bumpy structure itself has regularity. Please ask for the Examiner's opinion about whether or not the following amendments will overcome the rejection.

Grounds for Amendments:

(i) Grounds for amendments to claim 1: Claim 3, and paragraph [0069] of U.S. Patent Application Publication (US 2009/0314936 A1) of the present application.

(ii) Grounds for amendments to claim 13: Claim 14, paragraph [0084] of U.S. Patent Application Publication (US 2009/0314936 A1) of the present application.

<Draft of Amended Claims>

1. (Currently amended) A sample target comprising, as a sample support surface, a surface which is used to support a

sample in ionizing the sample on the basis of laser irradiation so as to perform mass spectrometry and which has a finely bumpy structure whose interval between concave portions or convex portions ranges from 1nm to 10μm, wherein

a face of the sample support surface is coated with metal, and the bumpy structure of the sample support surface is arranged so as to have a plurality of the concave portions which are regularly formed.

2. (Original) The sample target as set forth in claim 1, wherein the metal is at least either platinum (Pt) or gold (Au).

3. (Canceled) ~~The sample target as set forth in claim 1 or 2, wherein the bumpy structure of the sample support surface is arranged so that a plurality of concave portions are regularly formed.~~

13. (Currently amended) A method for producing a sample target including, as a sample support surface, a surface which is used to support a sample in ionizing the sample on the basis of laser irradiation so as to perform mass spectrometry and which has a finely bumpy structure whose interval between concave portions or convex portions ranges from 1nm to 10μm,

said method comprising the step of coating a face of the sample support surface with metal, and the step of repeatedly forming finely bumpy structures each of which has concave portions or convex portions regularly formed on a surface of a substrate in accordance with lithography so that an interval of the concave portions or the convex portions ranges from 1nm to

10μm and a depth of each of the concave portions ranges from 10nm to 1μm, before performing the step of coating the face of the sample support surface with the metal, so as to form the sample support surface on the surface of the substrate.

14. (Canceled) ~~The method as set forth in claim 13, comprising the step of repeatedly forming finely bumpy structures each of which has concave portions or convex portions on a surface of a substrate in accordance with lithography so that an interval of the concave portions or the convex portions ranges from 1nm to 10μm and a depth of each of the concave portions ranges from 10nm to 1μm, before performing the step of coating the face of the sample support surface with the metal, so as to form the sample support surface on the surface of the substrate.~~